

IN THE DRAWINGS:

In the Office Action, at page 2, the Examiner objected to FIG. 1 of the drawings. In order to overcome this objection, a replacement FIG. 1 is submitted herewith. The sheet containing FIG. 1 replaces the original sheet including FIG. 1. FIG. 1 is amended to include "OPERATING AREA 1" above "CN1" and "OPERATING AREA 2" above "CN2" in Fig. 1. Approval of this change to the Drawings is respectfully requested.

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1-3 have been amended. No new matter has been added.

In the Office Action, the Examiner noted that claims 1-3 and 5-11 were pending in the application, and claims 1-3 and 6-10 were rejected. Claim 5 was allowed and claim 11 was withdrawn. In view of the foregoing, claims 1-3 and 5-11 remain pending in the application. The Examiner's rejections are traversed below. Reconsideration of the claims is respectfully requested.

OBJECTIONS TO THE DRAWINGS:

In the Office Action, at page 2, Fig. 1 of the drawings was objected to. FIG. 1 has been amended based on the Examiner's comments.

Reconsideration and withdrawal of the outstanding objections to the drawings are respectfully requested.

REJECTION UNDER 35 U.S.C. §102:

Claims 1-3, 6 and 8-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Milbrath et al., U.S. Patent Number 6,166,371, hereafter referred to as "Milbrath". This rejection is traversed and reconsideration is requested.

This rejection is respectfully traversed because Milbrath does not teach or suggest:

means for outputting an informing signal for informing of the operating area where an operator is staying, in accordance with an operator's operation;

means for controlling the automatic machine, in response to the informing signal, so that the automatic machine does not enter the operating area where an operator is staying

On pages 8 and 9 of the Office Action, the Examiner took the position that there is a distinction between "location" which may be temporary and "staying" which is more permanent. In particular, the Examiner acknowledged that the prior art of record did not provide any "teaching and providing a signal that indicates where the operator is stationed (i.e., staying in the location for a period of time)". Claim 1 has been amended to replace the word "located" with – staying--.

Milbrath discloses, "a Diffuse Reflective Light Curtain System comprises at least one light curtain defining a border of a work zone for a robotic machine" (Milbrath, abstract). In other words, Milbrath discloses that a light curtain can determine when an object breaches the plane of light on a border of a work zone. Milbrath further discloses "Five light curtain frames 12 of various shapes are arranged to form a protected space having three zones. Zone X is defined by light curtains 1 and 5, Zone Y is defined by light curtains 5, 2 and 4, and Zone Z is defined by light curtains 4 and 3. A robotic machine 8 having a moving arm 9 is situated in the proximity of the light curtains 12, such that the moving arm 9 is capable of moving into Zone X, Zone Y or Zone Z. Light curtain 1 is initially disabled by the controller to allow a human operator to reach into Zone X during a loading stage and place a part on a platform 11. . . . When the sensor 6 detects that the arm 9 is about to enter Zone X, light curtain 5 is disabled to allow the robotic machine to enter Zone X. At the same time, light curtain 1 is activated to prevent any objects such as a human limb from being in Zone X during the time that the robotic machine operates in Zone X" (See Milbrath, FIG. 7 & column 7, line 58 through column 8, line 10). However, because the light curtain only detects when an object or a person breaches the plane of light on the border of the work zone, if an operator was entirely present in Zone X before light curtain 1 was activated, Milbrath would fail to detect the presence of the operator, thereby posing a potential safety hazard for the operator. Thus Milbrath fails to teach or suggest the feature of "means for outputting an informing signal for informing of the operating area where an operator is staying" and "means for controlling the automatic machine, in response to the informing signal, so that the automatic machine does not enter the operating area where an operator is staying" as recited, for example, in claims 1-3. Therefore, it is submitted that claims 1-3 patentably distinguish over the prior art.

Claims 6 and 8-10 depend from at least one of independent claims 1-3 and allowed claim 5, and include all the features of the claim from which they depend, plus additional patentable features. Therefore applicants respectfully submit that claims 6 and 8-10 patentably distinguish over the prior art.

REJECTION UNDER 35 U.S.C. §103:

Claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over Milbrath. This rejection is respectfully traversed and reconsideration is requested.

Claim 7 depends from at least one of independent claims 1-3 and 5, and include all the features of that claim and are therefore believed to be allowable for at least the reasons

mentioned above. Therefore, applicants respectfully request reconsideration of claim 7 under 35 U.S.C. § 103(a).

CLAIM 11

On pages 2 and 3 of the Office Action, the Examiner restricted claim 11 on the basis that it is a subcombination of claims 1, 2 and 3. It is submitted that claim 11 clearly recites subject matter very closely related to the claims in the subject application. It is further submitted that the applicants should be entitled to examination of this one related additional claim without incurring the expense of a separate divisional application. Therefore, it is respectfully requested that the Examiner reconsider the restriction of this claim and examine this claim on the merits.

ENTRY OF THIS AMENDMENT

In view of the fact that the only claim amendment being presented relates to a change in language suggested by the Examiner's specific comments and relate to language previously set forth in allowed claim 5, it is respectfully requested that the subject amendment be entered in the application.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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By: _____


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